

What is claimed is:

1. A device for guiding an implant to a location adjacent a bone anchor, comprising:
a guide member including a connecting portion and a guiding portion, wherein with said connecting portion adjacent the bone anchor said guiding portion extends proximally from said connecting portion and is adapted to receive the implant, wherein said guiding portion is flexible and movable to any one of a plurality of orientations relative to the anchor as the implant is guided therealong.
2. The device of claim 1, wherein said guiding portion is selected from the group consisting of: a cable, a wire, a tether, a cord, a suture, and a thread.
3. The device of claim 1, wherein said connecting portion includes a rigid tapered proximal portion forming a continuation of said guiding portion adjacent the bone anchor.
4. The device of claim 1, wherein said connecting portion includes a connector adapted to threadingly engage the bone anchor.
5. The device of claim 1, wherein said connecting portion includes a connector adapted to frictionally engage the bone anchor.
6. The device of claim 1, wherein said connecting portion includes a body and a pair of extensions extending distally from said body, said distal extensions releasably engageable with the bone anchor.
7. The device of claim 6, wherein said distal extensions each include an engagement portion extending therefrom engageable with the bone anchor.
8. The device of claim 7, wherein said engagement portions each project laterally from said respective distal extension.

9. The device of claim 7, wherein said distal extensions are deflectable toward one another for insertion into the bone anchor and biased toward a pre-insertion orientation to facilitate said engagement portions engaging the bone anchor.

10. A device for guiding an implant to a location adjacent a bone anchor, comprising:

a guide member including a connecting portion and a guiding portion, wherein with said connecting portion adjacent the bone anchor said guiding portion extends proximally from said connecting portion and is adapted to receive the implant, wherein said connecting portion includes a body comprising a tapered portion forming a substantially uniform transition between the anchor and said guiding portion.

11. The device of claim 10, wherein said guiding portion is flexible and movable to any one of a plurality of orientations relative to the anchor as the implant is guided therealong.

12. The device of claim 10, wherein said guiding portion is selected from the group consisting of: a cable, a wire, a tether, a cord, a suture, and a thread.

13. The device of claim 10, wherein said connecting portion includes a connector extending distally from said body adapted to threadingly engage the bone anchor.

14. The device of claim 10, wherein said connecting portion includes a connector extending distally from said body adapted to frictionally engage the bone anchor.

15. The device of claim 10, wherein said connecting portion includes a body and a pair of extensions extending distally from said body, said distal extensions releasably engageable with the bone anchor.

16. The device of claim 15, wherein said distal extensions each include an engagement portion extending therefrom engageable with the bone anchor.

17. The device of claim 16, wherein said engagement portions each project laterally from said respective distal extension.

18. The device of claim 16, wherein said distal extensions are deflectable toward one another for insertion into the bone anchor and biased toward a pre-insertion orientation to facilitate said engagement portions engaging the bone anchor.

19. The device of claim 10, wherein said body includes a cylindrical distal portion and said tapered portion extends between said distal portion and said guiding portion.

20. The device of claim 10, wherein said tapered portion extends from a distal end of said body to a proximal end of said body.

21. A minimally invasive surgical system, comprising:
an implant positionable within a body of a patient;
at least one bone anchor including a distal bone engaging portion and a proximal head portion; and
at least one guide member including a connecting portion and a guiding portion, wherein with said connecting portion adjacent said bone anchor said guiding portion extends proximally from said connecting portion and is adapted to receive said implant, wherein said connecting portion includes a body comprising a tapered portion forming a substantially uniform transition between said head portion of said bone anchor and said guiding portion.

22. The system of claim 21, wherein said implant includes an engagement member engageable to said proximal head portion of said bone anchor to secure said implant thereto.

23. The system of claim 21, further comprising:

a second bone anchor including a distal bone engaging portion and a proximal head portion; and

a second guide member including a connecting portion and a guiding portion, wherein with said connecting portion engaged to said second bone anchor said guiding portion extends proximally from said connecting portion and is adapted to receive said implant, wherein said connecting portion includes a body comprising a tapered portion forming a substantially uniform transition between said head portion of said second bone anchor and said guiding portion.

24. The system of claim 23, wherein said implant includes a plate having a length adapted to extend between said bone anchors when said bone anchors are implanted in a patient.

25. The system of claim 21, further comprising a minimally invasive surgical access device.

26. The system of claim 25, wherein said access device comprises a retractor including a working channel extending between a distal end and a proximal end.

27. The system of claim 26, wherein said retractor includes first and second portions movable relative to one another to enlarge said working channel between said distal end and said proximal end.

28. The device of claim 21, wherein said guiding portion is flexible and movable to any one of a plurality of orientations relative to said bone anchor as said implant is guided therealong.

29. The device of claim 21, wherein said body includes a cylindrical distal portion and said tapered portion extends between said distal portion and said guide portion.

30. The device of claim 21, wherein said tapered portion extends from a distal end of said body to a proximal end of said body.

31. A minimally invasive surgical system, comprising:
an implant positionable within a body of a patient;
at least one bone anchor including a distal bone engaging portion and a proximal head portion; and
a guide member including a connecting portion and a guiding portion, wherein with said connecting portion engaged to said bone anchor said guiding portion extends proximally from said connecting portion and is adapted to receive said implant, wherein said guiding portion is flexible and movable to any one of a plurality of orientations relative to said bone anchor as said implant is guided therealong.

32. The system of claim 31, wherein said implant includes an engagement member engageable to said proximal head portion of said bone anchor.

33. The system of claim 31, further comprising:
a second bone anchor including a distal bone engaging portion and a proximal head portion; and
a second guide member including a connecting portion and a guiding portion, wherein with said connecting portion engaged to said second bone anchor said guiding portion extends proximally from said connecting portion and is adapted to receive said implant, wherein said guiding portion is flexible and movable to any one of a plurality of orientations relative to said second bone anchor as said implant is guided therealong.

34. The system of claim 33, wherein said implant comprises a plate including a length adapted to extend between said bone anchors when said bone anchors are implanted in a patient.

35. The system of claim 31, further comprising a minimally invasive surgical access device.

36. The system of claim 35, wherein said access device comprises a retractor including a working channel extending between a distal end and a proximal end.

37. The system of claim 36, wherein said retractor includes first and second portions movable relative to one another to enlarge said working channel between said distal end and said proximal end.

38. The system of claim 31, wherein said guiding portion is selected from the group consisting of: a cable, a wire, a tether, a cord, a suture, and a thread.

39. The system of claim 31, wherein said connecting portion includes a tapered portion to guide said implant from said guiding portion over said bone anchor.

40. The system of claim 39, wherein said connecting portion includes a cylindrical distal portion and said tapered portion extends between said distal portion and said guide portion.

41. The system of claim 39, wherein said tapered portion extends from a distal end of said connecting portion to a proximal end of said connecting portion.

42. The system of claim 31, wherein said connecting portion includes a distal connector threadingly engageable in an internally threaded receptacle in said proximal head portion of said bone anchor.

43. The system of claim 31, wherein said connecting portion includes a distal connector adapted to frictionally engage an internal receptacle in said proximal head portion of said bone anchor.

44. The system of claim 31, wherein said connecting portion includes a body and a pair of extensions extending distally from said body, said distal extensions releasably engageable in a proximally opening receptacle in said proximal head portion of said bone anchor.

45. The system of claim 44, wherein said distal extensions each include an engagement portion extending therefrom engageable with an adjacent lateral opening in said proximal head portion of said bone anchor.

46. The system of claim 31, wherein said guiding portion is moveable between a loose condition and a taut condition to facilitate movement of said implant therealong.

47. A minimally invasive surgical method, comprising:
engaging a bone anchor to bony tissue in a patient in a minimally invasive surgical approach;

attaching a guide member to a proximal end of the bone anchor, the guide member including a guiding portion extending proximally from the bone anchor for access outside the patient;

positioning an implant on the guiding portion; and
tensioning the guiding portion.

48. The method of claim 47, wherein the guiding portion is flexible.

49. The method of claim 47, further comprising guiding the implant to the bone anchor along the guiding portion.

50. The method of claim 49, further comprising guiding an engagement member along the guiding portion and securing the implant to the bone anchor with the engagement member.

51. The method of claim 49, further comprising removing the guide member after guiding the implant.

52. The method of claim 51, wherein removing the guide member includes placing a removal instrument over a distal portion of the guide member attached to the bone anchor and distally advancing the removal instrument along the distal portion of the guide member to release the distal portion from the anchor.

53. The method of claim 47, wherein the guide member is attached to the proximal end of the bone anchor before engaging the bone anchor to bony tissue.

54. A minimally invasive surgical method, comprising:
engaging first and second bone anchors to bony tissue in a patient in at least one minimally invasive surgical approach;
attaching a guide member to a proximal end of each of the bone anchors, each of the guide members including a flexible guiding portion extending proximally from the bone anchor for access outside the patient;
positioning an implant on each of the guiding portions; and
guiding the implant along the flexible guiding portions to the bone anchors.

55. The method of claim 54, wherein the implant is an elongate plate including at least one opening therethrough adapted to receive the guiding portions and a proximal portion of each of the bone anchors.

56. The method of claim 55, further comprising guiding an engagement member along each of the guiding portions and securing the plate to the bone anchor with the engagement members.

57. The method of claim 56, wherein the proximal portions of the first and second anchors are threaded and the engagement members are nuts threadingly engageable with the proximal portions to secure the plate to the bone anchor.

58. The method of claim 54, further comprising tightening the flexible guiding portions to apply a distraction force between the bone anchors.

59. The method of claim 54, further comprising tightening the flexible guiding portions to apply a compressive force between the bone anchors.

60. The method of claim 54, wherein the bony tissue includes first and second vertebrae and further comprising positioning an implant between the first and second vertebrae.

61. The method of claim 54, wherein the guide member is attached to the proximal end of the bone anchor before engaging the bone anchor to bony tissue.

62. The method of claim 54, further comprising removing the each of the guide members after guiding the implant.

63. The method of claim 62, wherein removing each of the guide members includes placing a removal instrument over a distal portion of the guide member attached to the bone anchor and distally advancing the removal instrument along the distal portion of the guide member to release the distal portion from the anchor.

64. A minimally invasive surgical system, comprising:
at least one bone anchor including a distal bone engaging portion and a proximal head portion;
at least one guide member including a connecting portion and a guiding portion, wherein said connecting portion is releasably engageable to said proximal head portion of said bone anchor with said guiding portion extending proximally from said connecting portion; and
a removal tool including a distal end configured to compress said connecting portion to release said connecting portion from said proximal head portion.

65. The system of claim 64, wherein said connecting portion includes a body comprising a tapered portion forming a substantially uniform transition between said head portion of said bone anchor and said guiding portion

66. The system of claim 65, wherein said removal tool is configured to compress said connecting portion as it is distally advanced along said body.

67. The system of claim 66, wherein said removal tool includes an elongated passage for receiving said guide portion therein as said distal end is advanced distally along said body.